[4910-13-P]

#### DEPARTMENT OF TRANSPORTATION

**Federal Aviation Administration** 

14 CFR Part 39

[Docket No. FAA-2012-0042; Directorate Identifier 2011-NM-154-AD; Amendment

39-17057; AD 2012-10-08]

**RIN 2120-AA64** 

Airworthiness Directives; Bombardier, Inc. Airplanes

**AGENCY:** Federal Aviation Administration (FAA), Department of Transportation (DOT).

**ACTION:** Final rule.

SUMMARY: We are superseding an existing airworthiness directive (AD) for certain Bombardier, Inc. Model CL-600-2C10 (Regional Jet Series 700, 701 & 702), CL-600-2D15 (Regional Jet Series 705), and CL-600-2D24 (Regional Jet Series 900) airplanes. That AD currently requires a one-time inspection of the main landing gear (MLG) shock strut assemblies for part and serial numbers; for certain MLG shock strut assemblies, a one-time inspection of the torque link apex joint, and corrective actions if necessary; and, for certain MLG shock strut assemblies, replacement or rework of the apex nut. This new AD continues to require the actions in the existing AD, and adds the previously omitted part and serial numbers. This AD was prompted by reports of loose or detached main landing gear (MLG) torque link apex pin locking plate and the locking plate retainer bolt in the torque link apex joint. We are issuing this AD to detect and correct improper assembly and damage of the MLG torque link apex joint, which could

cause heavy vibration during landing, consequent damage to MLG components, and subsequent collapse of the MLG.

**DATES:** This AD becomes effective [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

The Director of the Federal Register approved the incorporation by reference of a certain publication listed in this AD as of May 18, 2011 (76 FR 20498, April 13, 2011).

ADDRESSES: You may examine the AD docket on the Internet at <a href="http://www.regulations.gov">http://www.regulations.gov</a> or in person at the U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE., Washington, DC.

FOR FURTHER INFORMATION CONTACT: Stephen Kowalski, Aerospace Engineer, Airframe and Mechanical Systems Branch, ANE-171, FAA, New York Aircraft Certification Office, 1600 Stewart Avenue, Suite 410, Westbury, New York 11590; phone: 516-228-7327; fax: 516-794-5531; e-mail: <a href="mailto:Stephen.Kowalski@faa.gov">Stephen.Kowalski@faa.gov</a>.

#### **SUPPLEMENTARY INFORMATION:**

#### Discussion

We issued a notice of proposed rulemaking (NPRM) to amend 14 CFR part 39 to include an AD that would apply to the specified products. That NPRM was published in the <u>Federal Register</u> on February 6, 2012 (77 FR 5730), and proposed to supersede AD 2011-08-04, Amendment 39-16654 (76 FR 20498, April 13, 2011). That NPRM proposed to correct an unsafe condition for the specified products. The MCAI states:

There have been four reports of loose or detached main landing gear torque link apex pin locking plate and the locking plate retainer bolt. This condition could result in torque link apex pin disengagement, heavy vibration during landing, damage to main landing gear components and subsequent main landing gear collapse.

Investigation has determined that incorrect stack-up tolerances of the apex joint or improper installation of the locking plate and apex nut could result in torque link apex pin disengagement. This [TCCA] directive mandates [a one-time detailed] inspection of the torque link apex joint [for correct installation and damage, and corrective actions if necessary] and replacement of the torque link apex nut.

The corrective actions include re-installing parts that are not correctly installed and replacing damaged parts. You may obtain further information by examining the MCAI in the AD docket.

#### **Comments**

We gave the public the opportunity to participate in developing this AD. We received no comments on the NPRM (77 FR 5730, February 6, 2012) or on the determination of the cost to the public.

#### **Explanation of Changes Made to this AD**

We have revised certain headers throughout this AD. We have also revised the heading for and the wording in paragraph (n) of this AD; this change has not affected the intent of that paragraph.

#### Conclusion

We reviewed the available data and determined that air safety and the public interest require adopting the AD with the changes described previously - except for minor editorial changes. We have determined that these changes:

- Are consistent with the intent that was proposed in the NPRM (77 FR 5730,
   February 6, 2012) for correcting the unsafe condition; and
- Do not add any additional burden upon the public than was already proposed in the NPRM (77 FR 5730, February 6, 2012).

## Difference Between This AD and the MCAI or Service Information

The MCAI specifies to inspect only airplanes having certain serial numbers that are part of the MCAI applicability. Because the affected part could be rotated onto any of the airplanes listed in the applicability, this AD continues to require that the inspection be done on all airplanes. We have coordinated this difference with the TCCA.

### **Costs of Compliance**

We estimate that this AD will affect about 361 products of U.S. registry.

The actions that are required by AD 2011-08-04, Amendment 39-16654 (76 FR 20498, April 13, 2011), and retained in this AD take about 5 work-hours per product, at an average labor rate of \$85 per work-hour. Based on these figures, the estimated cost of the currently required actions is \$153,425, or \$425 per product.

We estimate that it will take about 5 work-hours per product to comply with the new basic requirements of this AD. The average labor rate is \$85 per work-hour. Based on these figures, we estimate the cost of this AD to the U.S. operators to be \$153,425, or \$425 per product.

### **Authority for This Rulemaking**

Title 49 of the United States Code specifies the FAA's authority to issue rules on aviation safety. Subtitle I, section 106, describes the authority of the FAA Administrator. "Subtitle VII: Aviation Programs," describes in more detail the scope of the Agency's authority.

We are issuing this rulemaking under the authority described in "Subtitle VII, Part A, Subpart III, Section 44701: General requirements." Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

#### **Regulatory Findings**

We determined that this AD will not have federalism implications under Executive Order 13132. This AD will not have a substantial direct effect on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed above, I certify that this AD:

- 1. Is not a "significant regulatory action" under Executive Order 12866;
- 2. Is not a "significant rule" under the DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979);
  - 3. Will not affect intrastate aviation in Alaska; and
- 4. Will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

We prepared a regulatory evaluation of the estimated costs to comply with this AD and placed it in the AD docket.

## **Examining the AD Docket**

You may examine the AD docket on the Internet at <a href="http://www.regulations.gov">http://www.regulations.gov</a>; or in person at the Docket Operations office between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains the NPRM (77 FR 5730, February 6, 2012), the regulatory evaluation, any comments received, and other information. The street address for the Docket Operations office (telephone (800) 647-5527) is in the ADDRESSES section. Comments will be available in the AD docket shortly after receipt.

### List of Subjects in 14 CFR Part 39

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

# **Adoption of the Amendment**

Accordingly, under the authority delegated to me by the Administrator, the FAA amends 14 CFR part 39 as follows:

## **PART 39 - AIRWORTHINESS DIRECTIVES**

1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

# § 39.13 [Amended]

2. The FAA amends § 39.13 by removing airworthiness directive (AD) 2011-08-04, Amendment 39-16654 (76 FR 20498, April 13, 2011), and adding the following new AD:

**2012-10-08 Bombardier, Inc.:** Amendment 39-17057. Docket No. FAA-2012-0042; Directorate Identifier 2011-NM-154-AD.

## (a) Effective Date

This airworthiness directive (AD) becomes effective [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

#### (b) Affected ADs

This AD supersedes AD 2011-08-04, Amendment 39-16654 (76 FR 20498, April 13, 2011).

### (c) Applicability

This AD applies to the Bombardier airplanes identified in paragraphs (c)(1) and (c)(2) of this AD, certificated in any category.

- (1) Model CL-600-2C10 (Regional Jet Series 700, 701 & 702) airplanes, serial numbers (S/Ns) 10003 and subsequent.
- (2) Model CL-600-2D15 (Regional Jet Series 705) airplanes and Model CL-600-2D24 (Regional Jet Series 900) airplanes, S/Ns 15001 and subsequent.

## (d) Subject

Air Transport Association (ATA) of America Code 32: Landing gear.

### (e) Reason

This AD was prompted by reports of loose or detached main landing gear (MLG) torque link apex pin locking plate and the locking plate retainer bolt in the torque link apex joint. We are issuing this AD to detect and correct improper assembly and damage of the MLG torque link apex joint, which could cause heavy vibration during landing, consequent damage to MLG components, and subsequent collapse of the MLG.

## (f) Compliance

You are responsible for having the actions required by this AD performed within the compliance times specified, unless the actions have already been done.

# (g) Retained Inspection for Part Number (P/N) and S/N for Model CL-600-2C10 Airplanes

This paragraph restates the requirements of paragraph (g) of AD 2011-08-04, Amendment 39-16654 (76 FR 20498, April 13, 2011). For airplanes identified in paragraph (c)(1) of this AD: Within 900 flight hours after May 18, 2011 (the effective date of AD 2011-08-04), inspect the MLG shock strut assemblies to determine whether an MLG shock strut assembly having a P/N 49000-11 through 49000-22 inclusive and a S/N 0001 through 0284 inclusive is installed. A review of airplane maintenance records is acceptable in lieu of this inspection if the part and serial numbers of the MLG shock strut assembly can be conclusively determined from that review.

# (h) Retained Inspection of the Torque Link Apex Joint for Model CL-600-2C10 Airplanes

This paragraph restates the requirements of paragraph (h) of AD 2011-08-04, Amendment 39-16654 (76 FR 20498, April 13, 2011). For any MLG shock strut assembly having a P/N 49000-11 through 49000-22 inclusive and a S/N 0001 through 0284 inclusive found installed during the inspection or records check required by paragraph (g) of this AD: Within 900 flight hours after May 18, 2011 (the effective date of AD 2011-08-04), perform a one-time detailed inspection and all applicable corrective actions on the torque link apex joint, in accordance with Part A of the Accomplishment Instructions of Bombardier Service Bulletin 670BA-32-019, Revision A, dated September 18, 2008, except as provided by paragraph (o) of this AD. Do all applicable corrective actions before further flight.

# (i) Retained Replacement or Rework of the Apex Nut for Model CL-600-2C10 Airplanes

This paragraph restates the requirements of paragraph (i) of AD 2011-08-04, Amendment 39-16654 (76 FR 20498, April 13, 2011). For any MLG shock strut assembly identified during the inspection or records check required by paragraph (g) of this AD: Within 4,500 flight hours after May 18, 2011 (the effective date of AD 2011-08-04), replace or rework the apex nut, in accordance with Part B of the Accomplishment Instructions of Bombardier Service Bulletin 670BA-32-019, Revision A, dated September 18, 2008.

## (j) Retained Parts Installation

For all airplanes: As of May 18, 2011 (the effective date of AD 2011-08-04, Amendment 39-16654 (76 FR 20498, April 13, 2011)), no person may install, on any airplane, a replacement MLG shock strut assembly identified in paragraph (j)(1) or (j)(2) of this AD, unless it has been reworked in accordance with paragraph B. of Part B of the Accomplishment Instructions of Bombardier Service Bulletin 670BA-32-019, Revision A, dated September 18, 2008.

- (1) Part numbers 49000-11 through 49000-22 inclusive, and with a serial number in the range of S/Ns 0001 through 0284 inclusive (the serial number can start with "MA," "MAL," or "MA-").
- (2) Part numbers 49050-5 through 49050-10 inclusive, and with a serial number in the range of S/Ns 1001 through 1114 inclusive (the serial number can start with "MA," "MAL," or "MA-").

# (k) New Inspection for Part Number and Serial Number for Model CL-600-2D15 and CL-600-2D24 Airplanes

For airplanes identified in paragraph (c)(2) of this AD: Within 900 flight hours after the effective date of this AD, inspect the MLG shock strut assemblies to determine whether an MLG shock strut assembly having P/Ns 49050-5 through 49050-10 inclusive and a S/N 0001 through 1114 inclusive is installed. A review of airplane maintenance records is acceptable in lieu of this inspection if the part and serial numbers of the MLG shock strut assembly can be conclusively determined from that review.

# (l) Inspection of the Torque Link Apex Joint for Model CL-600-2D15 and CL-600-2D24 Airplanes

For any MLG shock strut assembly having P/Ns 49050-5 through 49050-10 inclusive and a S/N 0001 through 1114 inclusive found installed during the inspection or records check required by paragraph (k) of this AD: Within 900 flight hours after the effective date of this AD, perform a one-time detailed inspection and all applicable corrective actions on the torque link apex joint, in accordance with Part A of the Accomplishment Instructions of Bombardier Service Bulletin 670BA-32-019, Revision A, dated September 18, 2008, except as provided by paragraph (o) of this AD. Do all applicable corrective actions before further flight.

# (m) Replacement or Rework of the Apex Nut for Model CL-600-2D15 and CL-600-2D24 Airplanes

For any MLG shock strut assembly identified during the inspection or records check required by paragraph (k) of this AD: Within 900 flight hours after the effective date of this AD, replace or rework the apex nut, in accordance with Part B of the Accomplishment Instructions of Bombardier Service Bulletin 670BA-32-019, Revision A, dated September 18, 2008.

### (n) Credit for Previous Actions

(1) This paragraph provides credit for inspections, corrective actions, replacements, and rework required by paragraphs (g), (h), and (i) of this AD, if those actions were performed before May 18, 2011 (the effective date of AD 2011-08-04, Amendment 39-16654 (76 FR 20498, April 13, 2011)), using Bombardier Service Bulletin 670BA-32-019, dated March 16, 2006.

(2) This paragraph provides credit for inspections, corrective actions, replacements, and rework required by paragraphs (k), (l), and (m) of this AD, if those actions were performed before the effective date of this AD using Bombardier Service Bulletin 670BA-32-019, dated March 16, 2006.

## (o) Inspections Not Required Under Certain Conditions

The inspections specified in paragraph (h) or (l) of this AD are not required if the actions specified in paragraph (i) or (m) of this AD, as applicable, have already been accomplished; or if Bombardier Repair Engineering Order 670-32-11-0022, dated October 22, 2005, or Goodrich Service Concession Request SCR 0056-05, dated October 22, 2005; has been incorporated.

# (p) Other FAA AD Provisions

The following provisions also apply to this AD:

(1) Alternative Methods of Compliance (AMOCs): The Manager, New York Aircraft Certification Office (ACO), ANE-170, FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. In accordance with 14 CFR 39.19, send your request to your principal inspector or local Flight Standards District Office, as appropriate. If sending information directly to the ACO, send it to ATTN: Program Manager, Continuing Operational Safety, FAA, New York ACO, 1600 Stewart Avenue, Suite 410, Westbury, New York 11590; telephone 516-228-7300; fax 516-794-5531. Before using any approved AMOC, notify your appropriate principal inspector, or lacking a principal inspector, the manager of the local flight standards district office/certificate holding district office. The AMOC approval

letter must specifically reference this AD.

(2) Airworthy Product: For any requirement in this AD to obtain corrective actions from a manufacturer or other source, use these actions if they are FAA-approved. Corrective actions are considered FAA-approved if they are approved by the State of Design Authority (or their delegated agent). You are required to assure the product is airworthy before it is returned to service.

### (q) Special Flight Permits

Special flight permits, as described in Section 21.197 and Section 21.199 of the Federal Aviation Regulations (14 CFR 21.197 and 21.199), are not allowed.

## (r) Related Information

Refer to MCAI Canadian Airworthiness Directive CF-2009-20, dated May 1, 2009; and Bombardier Service Bulletin 670BA-32-019, Revision A, dated September 18, 2008; for related information.

### (s) Material Incorporated by Reference

- (1) The Director of the Federal Register approved the incorporation by reference (IBR) of the following service information under 5 U.S.C. 552(a) and 1 CFR part 51.
- (2) You must use the following service information to do the actions required by this AD, unless the AD specifies otherwise.
- (3) The following service information was approved for IBR on May 18, 2011 (76 FR 20498, April 13, 2011).
- (i) Bombardier Service Bulletin 670BA-32-019, Revision A, dated September 18, 2008.

(4) For service information identified in this AD, contact Bombardier, Inc., 400 Cote-Vertu Road West, Dorval, Quebec H4S 1Y9, Canada; phone: 514-855-5000; fax: 514-855-7401; e-mail: <a href="mailto:thd.crj@aero.bombardier.com">thd.crj@aero.bombardier.com</a>; Internet:

(5) You may review copies of the service information at the FAA, Transport Airplane Directorate, 1601 Lind Avenue SW., Renton, Washington. For information on the availability of this material at the FAA, call 425-227-1221.

(6) You may also review copies of the service information that is incorporated by reference at the National Archives and Records Administration (NARA). For information on the availability of this material at an NARA facility, call 202-741-6030, or go to <a href="http://www.archives.gov/federal\_register/code">http://www.archives.gov/federal\_register/code</a> of federal\_regulations/ibr\_locations.html. Issued in Renton, Washington, on May 10, 2012.

Michael Kaszycki, Acting Manager, Transport Airplane Directorate, Aircraft Certification Service.

http://www.bombardier.com.

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